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DATAMATION

FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

DECEMBER 15, 1990

Philippe Kahn, Borland's CEO, with Quattro Pro

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DATAMATION

VOLUME 36
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FOR MANAGERS OF INFORMATION TECHNOLOGY WORLDWIDE

COVER STORY

PCs & WORKSTATIONS

Borland's Spreadsheet Contender 34

BY JOHN McMULLEN Nothing has ever come close to unseating Lotus 1-2-3 as the world's most popular spreadsheet package. But Borland's feature-packed Quattro Pro 2.0 stands a fighting chance to dethrone the king.

Cover photo by David Toerge/Black Star

PCs & WORKSTATIONS

INFORMATION RETRIEVAL

CD-ROM Takes On Dial-Up Data 43

BY PAUL PINELLA
CD-ROM systems have been too exotic and expensive to be considered as replacements for remote databases. But as hardware prices plummet and telecom costs soar, CD-ROM is worth another look.

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NaviGate Through System Slowdowns 75

BY MIKE RICCIUTI
Landmark Systems's Monitor For DB2 and NaviGate pinpoint application bottlenecks and optimize system performance.

NaviGate takes users directly to system slowdowns, says Landmark's Jim Foxworthy.

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ToolBook's Easy Approach To Windows 47

BY JOHN McMULLEN Asymetrix's ToolBook provides programmers with an easier way to get in-house Windows projects up and running. But some say the price for a quick Windows fix is marginal applications performance.

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What's Slowing Fast Token Ring 51

BY TED BUNKER Users like 16Mbps Token Ring advantages, but have been wary of technical difficulties inherent in low-cost implementations using unshielded twisted-pair wiring.

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BY KURT ROTHSCHILD Timeplex sees LANs, video and data traffic occupying more network real estate than voice in the '90s. To service that traffic, Timeplex says it will become a full-line communications equipment vendor.

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Finally, A Binary UNIX PC Standard 59

BY PHILIP J. GILL All the big players in the UNIX field—AT&T, Intel, Microsoft, even OSF—are getting behind a single, binary-compatible PC-based version of UNIX based on The Santa Cruz Operation's UNIX System V/386 for PCs.

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MINISUPERCOMPUTERS

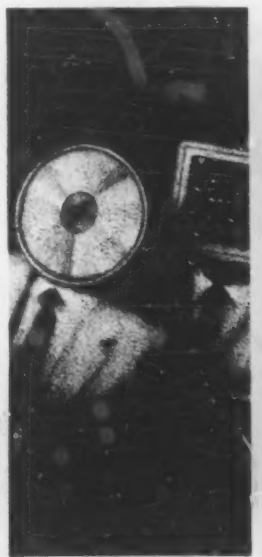
DEC, Sun Users Eye Minisupers 64

BY ELAINE APPLETON Minisupercomputers are fueling interest among power-hungry scientific and technical users of DEC VAXs and Sun workstations.

MINICOMPUTERS

Why Are HP Users Angry? 69

BY JEFF MOAD Hewlett-Packard's aggressive moves toward open systems are taking resources away from its proprietary mini, the MPE-based HP 3000. And users are hopping mad.



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Timeplex Girds For Data Deluge

Timeplex sees LANs, video and data traffic occupying more network real estate than voice in the '90s. To service that traffic, Timeplex says it will become a full-line communications equipment vendor.

BY KURT ROTHSCHILD

The era of voice dominance on the worldwide communications network is coming to a close, according to projections by Timeplex Inc. of Woodcliff Lake, N.J., based on a survey of 200 of its customers.

"While voice accounts for 50% of the current traffic demand, it is expected to drop to 40% by the '93–'95 time period as transmission of data and graphics become more important segments of network traffic," says Dewaine Osman, president of the T1 multiplexer vendor.

That kind of growth in data traffic is one of the reasons that the Unisys Corp. subsidiary announced this September that it would take over the assets of Irvine, Calif.-based Doelz Inc. and market that company's cell relay technology along with its own frame relay technology. The move is part of Timeplex's plan to transform itself from a leading supplier of T1 multiplexers to a broadline vendor of local and wide area network communications systems. As part of meeting this goal, Timeplex also introduced a new ISDN Gateway Server (IGS) and announced enhancements to its Time/View 2000 network management system.

Referring to the company's growing array of products, Osman zeros in on frame and cell relay technology and fast packet switching as vital to meeting emerging communications needs. "Faster transmission speed—preferably at lower cost—as well as simpler network management systems will be required," according to Osman, to accommodate the expected overall increase in total traffic.

New Look For Timeplex

Changes in data transmission needs will force equipment vendors to modify their marketing plans, according to Timeplex. "To be a major player in networking in the '90s, you must offer a well-rounded technology," said James J. Fiedler, executive vice president. "T1 multiplexer-only companies are going to be the dinosaurs of the '90s."

Timeplex is currently considered to be the leader of the T1 multiplexer market, according to Rick Malone, principal of Vertical Systems Group, a Dedham, Mass., consulting firm. According to Vertical Systems's recent report on the private network industry, Timeplex accounts for approximately 22% or $152 million of a worldwide market estimated to amount to $704 million in 1990. Revenue of $152 million represent approximately 65 to 70% of Timeplex's total revenues. Other product areas such as statistical multiplexers and X.25 packet technology, as well as services, make up the bulk of the remaining revenues.

The Doelz acquisition brings a source of revenue in house. Unisys had been acting as an original equipment manufacturer (OEM) for Doelz packet-switching systems for more than two years through its financial industry division, particularly in branch-banking applications.

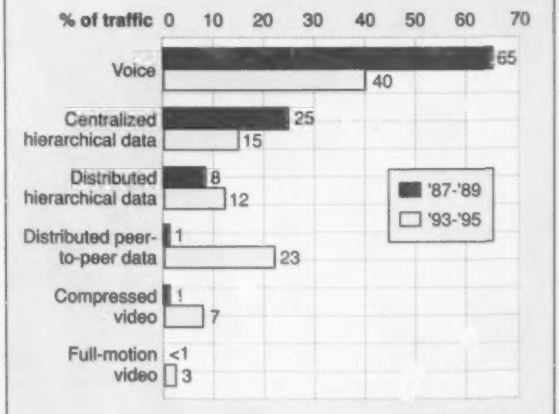
Doelz's products will now be incorporated into the Timeplex product line. Doelz, with approximately 60 employees, will remain in Irvine. The name will be changed to Doelz Technical Center. Osman expressed confidence that Timeplex could build on Doelz's existing sales.

Prior to the acquisition, Timeplex had already begun broadening its product line. The firm joined the ranks of T3 multiplexer vendors earlier this year, and it also entered the high-speed local area network connectivity market with its Fiber Distributed Data Interface (FDDI)-based routers, intelligent concentrators and routing bridges.

Says Carl Pitasi, vice president of Stamford, Conn.-based Gartner Group Inc., "The recent product announcements and acquisition moves have restored Timeplex to the front line."

Data, Video Will Flood Network

The data stream of the mid-'90s will be clogged with local area network and video traffic.



Source: Timeplex Inc.

MARKET INSIGHTS

AN ANALYSIS OF ECONOMIC TRENDS

Federal IS Spending Is Still Growing

BY MADELINE FRANCHI
Cahners Economics

Despite the continued likelihood of cutbacks in overall federal spending this year and next, the U.S. government still remains one of the largest markets for information systems purchases.

According to the Electronic Industries Association, information technology accounts for $20.3 billion of the total FY1991 federal budget. The EIA expects federal spending on information systems to grow at an average annual rate of 4.5 to 5.5% through 1995.

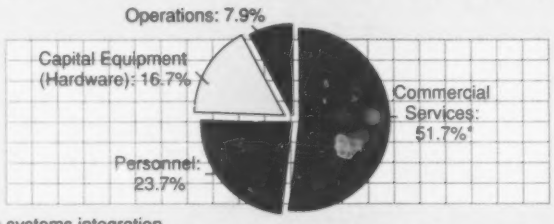
Not surprisingly, the Department of Defense (DOD) has control over the bulk of the dollars spent on IS, being responsible for $9.2 billion, or 45%, of total spending this fiscal year. Four other agencies—the National Aeronautics and Space Administration (NASA), the Department of Energy, the Environmental Protection Agency and the Department of Transportation—share 19% of the dollars, or $3.9 billion.

Strong increases in government spending on information systems will actually be limited to a few selected agencies. NASA's share of the budget will expand 35% by FY1995, from the current $1.7 billion to $2.3 billion. In contrast, while DOD information system spending will continue to rise by a modest 2 to 3% per year, the DOD's share of total government information systems spending will fall from its present 45% to 40% by 1995. Even so, because of the large amounts of dollars involved, the DOD will remain an important market for the information systems industry.

For more information on Cahners Economics's forecasting services, contact Dan Buchanan at (617)-630-2105, by fax at (617)-630-2100 or write to him at Cahners Economics, 275 Washington Street, Newton MA 02158.

Federal IS Spending: The Big Picture

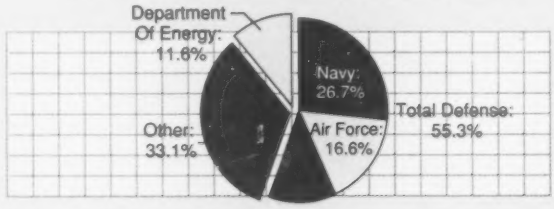
U.S. government spending on information technology (FY1991 budget)



*Includes systems integration

Source: Federal Computing Inc., *Government Computer News.*

U.S. government installed base of information systems**



**percent share of total dollar value in place through 1989

Source: U.S. General Services Administration

	Actual		Forecast (Annual % growth)		
	Q2/90	Q3/90	1990	1991	1992
Gross National Product	0.4	1.8	1.1	1.9	2.9
Business Investment In Equipment	-3.4	8.2	2.3	3.5	3.6
Government Spending	6.2	1.3	2.5	0.5	0.9
Consumer Spending	0.2	3.6	1.2	1.5	2.5
Exports	-5.0	1.2	5.1	2.8	5.6
Imports	0.7	6.0	3.4	2.1	3.0

All calculations are % change in 1982 dollars; quarterly figures are seasonally adjusted annual rates.

Manufacturing Production (1)	August	July	% Change 8/90-7/90	August 1989	% Change 1990-1989
Process Industries Total	109.1	109.1	0.0	108.4	0.6
Chemicals	109.5	109.4	0.1	109.6	-0.1
Petroleum	108.4	109.0	-0.6	107.0	1.3
OEM Total	114.1	114.5	-0.3	112.4	1.5
Computers & Peripherals	149.9	149.3	0.4	139.3	7.6
Communication Equipment	110.9	110.8	0.1	106.0	4.6
Transportation Equipment	108.6	109.1	-0.5	107.8	0.7
Services Employment (2)					
Finance, Insurance, Real Estate	6.935	6.937	0.0	6.821	1.7
Health Care	8.021	8.174	0.3	7.628	7.5
Computer & Data Processing	0.809	0.806	0.4	0.756	7.0
Transportation/Utilities	5.854	5.842	0.2	5.566	5.2
Retail Trade	19.950	19.946	0.0	19.745	1.0
Wholesale Trade	6.416	6.417	0.0	6.327	1.4
Government	17.242	17.478	-1.4	16.730	3.1

(1) Index 1978=100, seasonally adjusted
(2) Millions of persons, not seasonally adjusted

Source: Commerce Dept. and Cahners Economics

MARKET INSIGHTS

A SURVEY OF TECHNOLOGY TRENDS

Needed: Better Client/Server Development Tools

BY WARREN CHILDS
Business Research Group

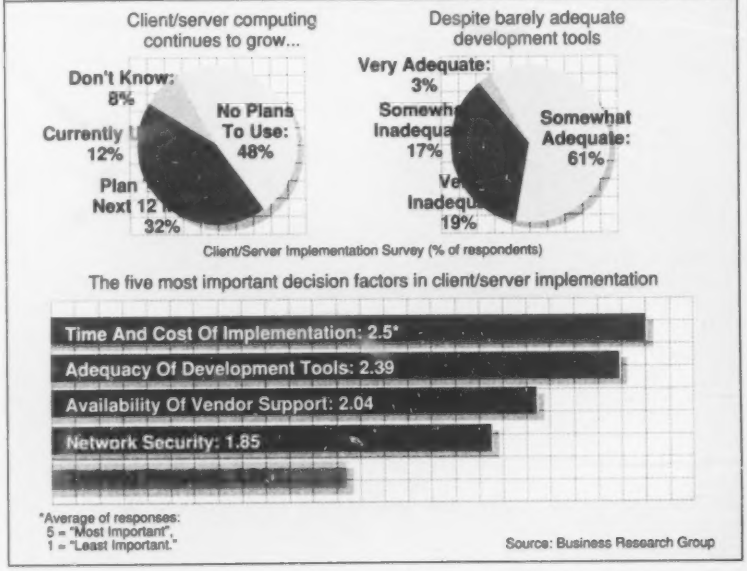
Although 74% of the members of the DATAMATION High-Technology Panel are now running or soon plan to run 386-based local area network server systems complete with PC desktop clients, only 12% say they have actually implemented true client/server computing, defined as processing shared between client workstations and server hosts.

Users cite two factors hindering the speedy implementation of true client/server computing: high costs in terms of the dollars and time needed to install these systems and a lack of adequate development tools to easily and quickly create client/server applications.

When asked about development tools currently available for client/server applications, only 3% of our panel members said they consider the tools on the market today very adequate for their needs, whereas 19% said they consider them very inadequate. Another 17% consider them somewhat inadequate.

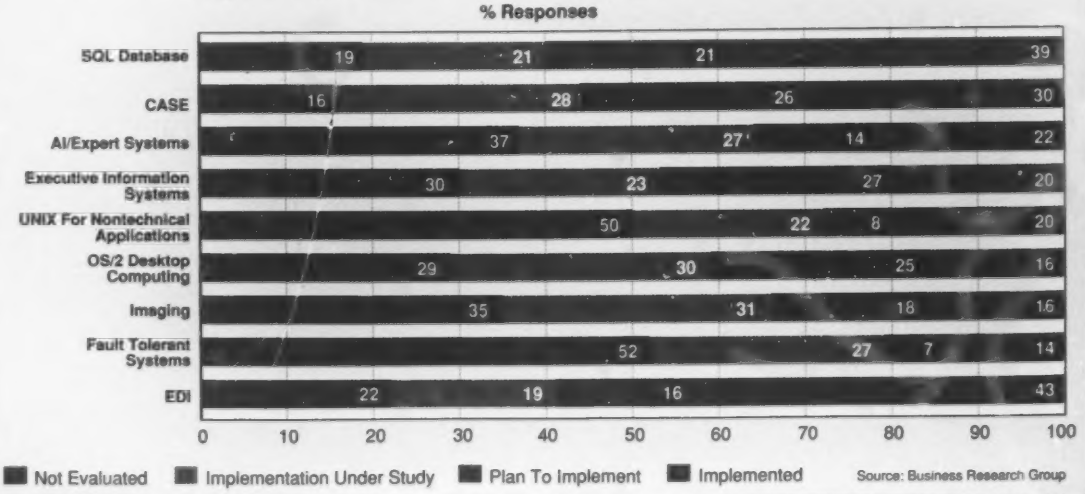
For more information, contact Nancy Finn at (617)-964-6204, by fax at (617)-558-4402 or write to her at Business Research Group, 275 Washington Street, Newton, MA 02158.

What's Holding Back Client/Server Growth?


Client/server computing continues to grow...
Don't Know: 8%
No Plans To Use: 48%
Currently U 12%
Plan Next 12 32%
Despite barely adequate development tools
Very Adequate: 3%
Somewh Inadequa 17%
Somewhat Adequate: 61%
Ve Inadequ 19%
Client/Server Implementation Survey (% of respondents)
The five most important decision factors in client/server implementation
Time And Cost Of Implementation: 2.5*
Adequacy Of Development Tools: 2.39
Availability Of Vendor Support: 2.04
Network Security: 1.85
*Average of responses:
5 = "Most Important",
1 = "Least Important."
Source: Business Research Group

DATAMATION's Technology Implementation Index: Systems And Software

DATAMATION each month surveys a select group of its readers–the DATAMATION High Technology Panel–to investigate the implementation of new technologies by key user organizations.


% Responses
SQL Database 19 21 21 39
CASE 16 28 26 30
AI/Expert Systems 37 27 14 22
Executive Information Systems 30 23 27 20
UNIX For Nontechnical Applications 50 22 8 20
OS/2 Desktop Computing 29 30 25 16
Imaging 35 31 18 16
Fault Tolerant Systems 52 27 7 14
EDI 22 19 16 43
0 10 20 30 40 50 60 70 80 90 100
Not Evaluated
Implementation Under Study
Plan To Implement
Implemented
Source: Business Research Group

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